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PHILOSOPHICAL
TRANSACTIONS

OF THE

ROYAL SOCIETY

OF

LONDON.

FOR THE YEAR MDCCCLXVI.

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MDCCCLXVI.

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ADVERTISEMENT.

THE Committee appointed by the *Royal Society* to direct the publication of the *Philosophical Transactions*, take this opportunity to acquaint the Public, that it fully appears, as well from the Council-books and Journals of the Society, as from repeated declarations which have been made in several former *Transactions*, that the printing of them was always, from time to time, the single act of the respective Secretaries till the Forty-seventh Volume; the Society, as a Body, never interesting themselves any further in their publication, than by occasionally recommending the revival of them to some of their Secretaries, when, from the particular circumstances of their affairs, the *Transactions* had happened for any length of time to be intermitted. And this seems principally to have been done with a view to satisfy the Public, that their usual meetings were then continued, for the improvement of knowledge, and benefit of mankind, the great ends of their first institution by the Royal Charters, and which they have ever since steadily pursued.

But the Society being of late years greatly enlarged, and their communications more numerous, it was thought advisable that a Committee of their members should be appointed, to reconsider the papers read before them, and select out of them such as they should judge most proper for publication in the future *Transactions*; which was accordingly done upon the 26th of March 1752. And the grounds of their choice are, and will continue to be, the importance and singularity of the subjects, or the advantageous manner of treating them; without pretending to answer for the certainty of the facts, or propriety of the reasonings, contained in the several papers so published, which must still rest on the credit or judgement of their respective authors.

It is likewise necessary on this occasion to remark, that it is an established rule of the Society, to which they will always adhere, never to give their opinion, as a Body, upon any subject, either of Nature or Art, that comes before them. And therefore the

thanks, which are frequently proposed from the Chair, to be given to the authors of such papers as are read at their accustomed meetings, or to the persons through whose hands they received them, are to be considered in no other light than as a matter of civility, in return for the respect shown to the Society by those communications. The like also is to be said with regard to the several projects, inventions, and curiosities of various kinds, which are often exhibited to the Society; the authors whereof, or those who exhibit them, frequently take the liberty to report and even to certify in the public newspapers, that they have met with the highest applause and approbation. And therefore it is hoped that no regard will hereafter be paid to such reports and public notices; which in some instances have been too lightly credited, to the dishonour of the Society.

The Meteorological Journal hitherto kept by the Assistant Secretary at the Apartments of the Royal Society, by order of the President and Council, and published in the Philosophical Transactions, has been discontinued. The Government, on the recommendation of the President and Council, has established at the Royal Observatory at Greenwich, under the superintendence of the Astronomer Royal, a Magnetical and Meteorological Observatory, where observations are made on an extended scale, which are regularly published. These, which correspond with the grand scheme of observations now carrying out in different parts of the globe, supersede the necessity of a continuance of the observations made at the Apartments of the Royal Society, which could not be rendered so perfect as was desirable, on account of the imperfections of the locality and the multiplied duties of the observer.

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Dublin.	Madras.
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Brünn	Naturforschender Verein.
Danzig	Naturforschende Gesellschaft.
Dresden	Kaiserliche Leopoldino-Carolinische deutsche Akademie der Naturforscher.
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tere ed Arti.

Modena Società Italiana delle Scienze.

Naples Società Reale, Accademia delle Scienze.

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ADJUDICATION of the MEDALS of the ROYAL SOCIETY for the year 1866 by
the PRESIDENT and COUNCIL.

The COPLEY MEDAL to PROFESSOR JULIUS PLÜCKER, For. Mem. R.S., for his Researches in Analytical Geometry, Magnetism, and Spectral Analysis.

A ROYAL MEDAL to WILLIAM HUGGINS, F.R.S., for his Researches on the Spectra of some of the Chemical Elements, and on the Spectra of certain of the Heavenly Bodies; and especially for his Researches on the Spectra of the Nebulæ, published in the Philosophical Transactions.

A ROYAL MEDAL to WILLIAM KITCHEN PARKER, F.R.S., for his Researches in Comparative Osteology, and more especially on the Anatomy of the Skull, as contained in Papers published in the Transactions of the Zoological Society and the Philosophical Transactions.

The RUMFORD MEDAL to M. ARMAND HIPPOLYTE LOUIS FIZEAU, for his Optical Researches, and especially for his investigations into the Effect of Heat on the Refractive Power of Transparent Bodies.

The BAKERIAN LECTURE was delivered by JAMES CLERK MAXWELL, F.R.S.; it was entitled "On the Viscosity or Internal Friction of Air and other Gases."

The CROONIAN LECTURE was not delivered.